

**AMENDED CLAIMS**

**[Received by the International Bureau on 17 November 2004 (17.11.2004):  
original claims 1-3 replaced by amended claims 1-9 (4 pages)]**

1. Composition for treating crude-oils, **characterized in that** it comprises 20 ... 30% by volume of phenolic oil which is a distillation fraction having a distillation temperature range from 170 - 190° C; 20 ... 40% by volume of absorption oil which is a distillation fraction having a distillation temperature range from 250 to 270° C; 20 ... 40% by volume of polymerization oil which is a distillation fraction having a distillation temperature range from 320 to 350° C, and a mixture of chemical additives for the remainder up to 100 % by volume, said mixture containing a surfactant, a gas generator, an acidic substance and a solvent, the density of the composition being of 1.10 ... 1.12 g/cm<sup>3</sup>.

2. Composition according to claim 1, **characterized in that** the volumetric ratio of the phenolic oil, absorption oil and polymerization oil being preferably of 1 : 1 : 1.

3. Composition according to claim 1, or claim 2, **characterized in that** the phenolic oil preponderantly comprises cresols, naphthalenes and anthracenes with various chemical radicals attached thereto and has a density of 1.15 ... 1.20 g/ cm<sup>3</sup>; the absorption oil preponderantly containing phenanthrene, fluorene, carbosols and fluoranthrene and has a density of 1.19 ... 1.22 g/cm<sup>3</sup>, and the polymerization oil preponderantly contains pyrene, acenaphthenes and chrysenes, and has a density of 1.20 ... 1.23 g/cm<sup>3</sup>.

4. Composition according to claim 1, **characterized in that** the mixture of chemical additives preferably consists of 25% by weight of surfactant, preferably nonylphenol ethoxylated with 5 ... 9 ethoxy groups; 10% by weight of gas generating substance, preferably consisting of ammonium salts selected from ammonium sulphates or

carbonates which are decomposed at a temperature less than 70° C causing the generation of gases; 15% by weight of an acidic substance, preferably phenol and solvent for the remainder to 100%.

5. Composition according to claim 1 and claim 4, **characterized in that** it comprises 30% by volume of phenolic oil, 30% by volume of absorption oil, 20% by volume of polymerization oil and 20% by volume of chemical additive mixture comprising 10% by weight of ammonium carbonate, 25% by weight of nonylphenol ethoxylated with 5 - 9 ethoxy groups, 15% by weight of phenol and solvent for the remainder to 100%.

6. Process for treating crude-oils, which is applied by the use of the composition according to claim 1, **characterized in that** a composition defined in claim 1 is injected under a pressure preferably having a value of 70 ... 90 bar through a tubing or through a production casing for crude-oil exploitation through a well which penetrates and opens a productive crude oil-field, followed by ceasing the fluid extraction through the tubing for 4 ... 8 hours and thereafter the well is started up.

7. Process according to claim 6, **characterized in that** in the tubing or in the production casing there is injected an amount of the composition defined in claim 1 which should ensure a distribution preferably of 5m<sup>3</sup> of solution/meter of perforated tubing portion.

8. Process for treating crude-oils, which is applied by the use of the composition according to claim 1, carried out in another variant, **characterized in that** a composition according to claim 1 is injected through a line for conveying the crude-oil extracted through a well, in case of blocking the flow therethrough, the injection being carried out with a maximum pressure value which is limited by the pressure that the tubing can withstand, and the pressure value

is maintained for 4 ... 8 hours within the line.

9. Process for treating the crude-oils according to claim 6 or claim 8, **characterized in that**, in the situation in which after 4 ... 8 hours the crude-oil circulation is not restored to the normal parameters, the composition injected into the tubing or in the line is extracted and then the composition according to claim 1 is injected again.

**STATEMENT****According to Art. 19 (1)**

The initial claims 1 - 3 were amended there being drafted a new set of claims (claims 1 - 9) which comprises:

- an independent claim, claim 1, for the composition for treating the crude-oils, accompanied by four dependent claims wherein there are explained some elements from the independent claim (claims 2 -4) or there is claimed a specific composition considered to be the best for solving the problem in the present invention (claim 5), and
- two independent claims for the process of treating the crude-oils, one within the well (claim 6) and the other while conveying the crude-oil through the lines (claim 8), each being accompanied by the dependent claims 7 and 9.

Within the content of the amended claims 1 - 9 there cannot be found the syntagma "chemical vector ", which was eliminated and the syntagma "organic reactive" was substituted with "chemical additive". The syntagma "stimulate the extraction" was substituted with the syntagma "treatment".

Through all these amendments there is eliminated the haziness generated by the improper use of some notions, allowing to define correctly the "scope of the invention".

All the amendments performed are based on the initial claims and on the description of the invention.

The description of the invention will be amended so as to comply with the mentioned amendments, as well as with explaining some notions, such as "phenolic oil", "absorption oil" and "polymerization oil".